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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,047	01/08/2001	Takuji Goda	K-1951	6751

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EXAMINER

PIZIALI, ANDREW T

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 11/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/755,047

Applicant(s)

GODA ET AL.

Examiner

Andrew T. Piziali

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8 and 10-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8 and 10-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/21/2006 has been entered.

Response to Amendment

2. The examiner has withdrawn the 35 USC 112 first and second paragraph rejections based on the amendments to claims 8 and 11.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,124,026 to McCurdy et al. (hereinafter referred to as McCurdy) in view of USPN 5,811,923 to Zieba et al. (hereinafter referred to as Zieba).

Regarding claims 8 and 11, McCurdy discloses an article comprising an alkali-containing glass substrate, a barrier layer (corresponding to the claimed under layer) for preventing diffusion of alkali ions formed on a surface of the alkali-containing glass substrate, an absorbing coating (corresponding to the claimed barrier film) mainly formed of tin oxide deposited on the under layer, an SiO₂ film (corresponding to the claimed insulating film) deposited on the barrier film, and a conductive coating (corresponding to the claimed electrode film) (see entire document including column 3, lines 9-32 and column 4, lines 12-65).

It is noted that McCurdy specifically discloses that the barrier layer (corresponding to the claimed under layer) is capable of preventing diffusion of alkali ions formed on a surface of the alkali-containing glass substrate (column 4, lines 34-43). It is further noted that although McCurdy does not specifically disclose that the SiO₂ film (corresponding to the claimed insulating film) possesses the claimed surface electrical resistance of from 1.0×10^6 ohms/square to 1.0×10^{16} ohms/square even after heating process at 550 degrees C for 1 hour, McCurdy does disclose that the film may be a SiO₂ film with a thickness of about 700 angstroms (70 nm) (paragraph bridging columns 4 and 5). Considering that the current specification discloses that a 25 to 200 nm thick SiO₂ film may be used as the insulating layer to obtain the claimed surface electrical resistance (see page 11, lines 6-13), and considering that the specification does not teach or suggest that anything else is done to control the resistance of the film, it appears that the SiO₂ film taught by McCurdy inherently possesses the claimed surface electrical resistance.

McCurdy discloses that the conductive coating enables the article to dissipate static charges and that it "generally" is applied onto the absorbing coating prior to applying the SiO₂ film (column 4, lines 44-51). McCurdy does not appear to specifically state that the conductive

Art Unit: 1771

coating is to be deposited on the SiO₂ film (the exterior of the article), but Zieba discloses that it is known in the glass substrate static dissipating art to deposit a conductive coating on the exterior of an article to provide static discharge (see entire document including column 7, lines 8-22). It would have been obvious to one having ordinary skill in the art at the time the invention was made to deposit the conductive coating on the SiO₂ film (the exterior of the article), as taught by Zieba, because the exterior location provides for static discharge capability, is a viable alternative to the disclosed interior location, and because it is within the general skill of a worker in the art to select a known location on the basis of its suitability.

The absorbing coating (corresponding to the claimed barrier film) of McCurdy mainly comprises tin oxide (column 3, lines 9-12), which is the material claimed by the applicant and is same material disclosed by the specification as having excellent efficiency of preventing diffusion of metal ions (see page 4, lines 11-15). Therefore, it appears that the absorbing coating (corresponding to the claimed barrier film) inherently possesses the ability to substantially preventing diffusion of metal ions of the electrode film into the glass substrate.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Regarding the insulating layer, McCurdy discloses the use of a SiO₂ film with a thickness of about 700 angstroms (70 nm) (paragraph bridging columns 4 and 5). Considering that the current specification discloses that a 25 to 200 nm thick SiO₂ film may be used as the insulating layer (see page 11, lines 6-13), it appears that the SiO₂ film taught by McCurdy inherently possesses the ability to substantially preventing diffusion of metal ions of the electrode film into the glass substrate.

Regarding the claimed use of the glass substrate for a display, considering that the glass substrate taught by the applied prior art is identical to the claimed glass substrate, it appears that the glass substrate taught by the applied prior art is capable of performing the intended use. It is noted that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

5. Claims 8 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,124,026 to McCurdy in view of USPN 5,811,923 to Zieba as applied to claims 8 and 11 above, and further in view of USPN 5,288,558 to Nothe.

McCurdy discloses that conventional conductive coatings generally recognized within the art may be suitable for use as the conductive coating (corresponding to the claimed electrode film) (column 4, lines 52-65), but McCurdy does not appear to specifically mention the use of gold. Nothe discloses that it is known in the anti-reflective coating art to apply an outer conductive gold layer over a silicon oxide layer for a neutral-colored reflection elimination effect (see entire document including column 2, lines 20-64). It would have been obvious to one

Art Unit: 1771

having ordinary skill in the art at the time the invention was made to make the conductive coating from gold, as taught by Nothe, for a neutral-colored reflection elimination effect and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

The absorbing coating (corresponding to the claimed barrier film) of McCurdy mainly comprises tin oxide (column 3, lines 9-12), which is the material claimed by the applicant and is same material disclosed by the specification as having excellent efficiency of preventing diffusion of metal ions (see page 4, lines 11-15). In addition, the gold conductive coating is the same material claimed by the applicant as the material for the electrode film. Therefore, it appears that the absorbing coating (corresponding to the claimed barrier film) inherently possesses the ability to substantially preventing diffusion of the gold ions of the electrode film into the glass substrate.

Regarding the insulating layer, McCurdy discloses the use of a SiO₂ film with a thickness of about 700 angstroms (70 nm) (paragraph bridging columns 4 and 5). Considering that the current specification discloses that a 25 to 200 nm thick SiO₂ film may be used as the insulating layer (see page 11, lines 6-13), it appears that the SiO₂ film taught by McCurdy inherently possesses the ability to substantially preventing diffusion of gold ions of the electrode film into the glass substrate.

6. Claims 8 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,124,026 to McCurdy in view of USPN 5,811,923 to Zieba as applied to claims 8 and 11 above, and further in view of USPN 6,992,425 to Ishikawa et al. (hereinafter referred to as Ishikawa).

McCurdy discloses that conventional conductive coatings generally recognized within the art may be suitable for use as the conductive coating (corresponding to the claimed electrode film) (column 4, lines 52-65), but McCurdy does not appear to specifically mention the use of silver, copper or gold. Ishikawa discloses that it is known in the anti-reflective coating art to apply an anti-static conductive silver, copper or gold layer over a silicon oxide layer for anti-static and/or electromagnetic shielding (see entire document including column 2, line 49 through column 3, line 35). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the conductive coating from copper, silver or gold, as taught by Ishikawa, for anti-static and/or electromagnetic shielding and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

The absorbing coating (corresponding to the claimed barrier film) of McCurdy mainly comprises tin oxide (column 3, lines 9-12), which is the material claimed by the applicant and is same material disclosed by the specification as having excellent efficiency of preventing diffusion of metal ions (see page 4, lines 11-15). In addition, the silver, copper or gold conductive coating is the same material claimed by the applicant as the material for the electrode film. Therefore, it appears that the absorbing coating (corresponding to the claimed barrier film) inherently possesses the ability to substantially preventing diffusion of the silver, copper or gold ions of the electrode film into the glass substrate.

Regarding the insulating layer, McCurdy discloses the use of a SiO_2 film with a thickness of about 700 angstroms (70 nm) (paragraph bridging columns 4 and 5). Considering that the current specification discloses that a 25 to 200 nm thick SiO_2 film may be used as the insulating

Art Unit: 1771

layer (see page 11, lines 6-13), it appears that the SiO₂ film taught by McCurdy inherently possesses the ability to substantially preventing diffusion of silver, copper or gold ions of the electrode film into the glass substrate.

Response to Arguments

7. Applicant's arguments filed 9/21/2006 have been fully considered but they are not persuasive.

The applicant asserts that the conductive coating disclosed by McCurdy is not an electrode film because the definition of "electrode" is "a conductor used to establish electrical contact with a nonmetallic part of a circuit." The examiner respectfully disagrees. The conductive coating of McCurdy is considered an electrode film because a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. The conductive coating of McCurdy is clearly capable of establishing electrical contact with a nonmetallic part of a circuit, therefore, the conductive coating of McCurdy can be considered an electrode.

The applicant asserts that one skilled in the art would not be inclined to form the conductive coating of McCurdy on the surface of the article. The examiner respectfully disagrees. McCurdy discloses that the conductive coating enables the article to dissipate static charges and that it "generally" is applied onto the absorbing coating prior to applying the SiO₂ film (column 4, lines 44-51). McCurdy does not appear to specifically state that the conductive

Art Unit: 1771

coating is to be deposited on the SiO₂ film (the exterior of the article), but Zieba discloses that it is known in the glass substrate static dissipating art to deposit a conductive coating on the exterior of an article to provide static discharge (see entire document including column 7, lines 8-22). It would have been obvious to one having ordinary skill in the art at the time the invention was made to deposit the conductive coating on the SiO₂ film (the exterior of the article), as taught by Zieba, because the exterior location provides for static discharge capability, is a viable alternative to the disclosed interior location, and because it is within the general skill of a worker in the art to select a known location on the basis of its suitability.

The applicant asserts that if one skilled in the art were to position the conductive coating on the exterior of the article, one would also have to place the absorbing/antireflective coating on the exterior of the article in order to provide antireflective function. The examiner respectfully disagrees. McCurdy discloses that the absorbing/antireflective coating functions just fine while positioned in the interior of the article (see column 4, lines 11-65).

The applicant asserts that the absorbing coating (corresponding to the claimed barrier film) of McCurdy would not be capable of substantially preventing diffusion of metal ions of the electrode film into the glass substrate. The examiner respectfully disagrees. The absorbing coating (corresponding to the claimed barrier film) of McCurdy mainly comprises tin oxide (column 3, lines 9-12), which is the material claimed by the applicant and is same material disclosed by the specification as having excellent efficiency of preventing diffusion of metal ions (see page 4, lines 11-15). Therefore, it appears that the absorbing coating (corresponding to the claimed barrier film) inherently possesses the ability to substantially preventing diffusion of metal ions of the electrode film into the glass substrate. It is noted that the applicant has failed to

Art Unit: 1771

show, or attempt to show, that the absorbing coating (corresponding to the claimed barrier film) does not inherently possesses the ability to substantially preventing diffusion of metal ions of the electrode film into the glass substrate.

The applicant asserts that the article disclosed by McCurdy is different from the currently claimed invention because the currently claimed invention is used to prevent diffusion of metal ion without a problem of stain by metal colloids. The examiner respectfully disagrees. Firstly, the current claims do not mention metal colloids. Secondly, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1771

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

atp

9703 11/13/06
ANDREW PIZIALI
PRIMARY EXAMINER